## What is claimed is:

- 1. A environmentally degradable, highly attenuated fiber produced by melt spinning a composition comprising:
  - a. destructurized starch,
  - b. a biodegradable thermoplastic polymer having a molecular weight of less than about 500,000 g/mol; and
  - c. a plasticizer
- 2. The highly attenuated fiber of Claim 1 wherein the destructurized starch is present in an amount of from about 5% to about 85%.
- 3. The highly attenuated fiber of Claim 1 wherein the biodegradable thermoplastic polymer is present in an amount of from about 5% to about 90%.
- 4. The highly attenuated fiber of Claim 1 wherein the total plasticizer amount is from about 2% to about 70%.
- 5. The highly attenuated fiber of Claim 1 wherein more than one biodegradable thermoplastic polymer is present.
- 6. The highly attenuated fiber of Claim 1 wherein the biodegradable thermoplastic polymer is a homopolymer or copolymer of crystallizable polylactic acid having a melting temperature of from about 160°C to about 175°C.
- 7. The highly attenuated fiber of Claim 5 wherein the first biodegradable thermoplastic polymer is a homopolymer or copolymer of crystallizable polylactic acid having a melting temperature of from about 160°C to about 175°C and the second biodegradable thermoplastic polymer is another polylactic acid having lower crystallinity and melting temperature than the first polylactic acid.

- 8. The highly attenuated fiber of Claim 6 wherein a second biodegradable thermoplastic polymer is selected from a group consisting of diacid/diol aliphatic polyesters, aliphatic/aromatic copolyesters, and combinations thereof.
- 9. The highly attenuated fiber of Claim 1 wherein the fiber has a diameter of less than 200 micrometers.
- 10. The highly attenuated fiber of Claim 1 wherein the starch is not substituted and has a reduced molecular weight of from about 30,000 g/mol to about 500,000 g/mol.
- 11. The highly attenuated fiber of Claim 1 wherein the fiber is thermally bondable.
- 12. A nonwoven web comprising the highly attenuated fibers of Claim 11.
- 13. A nonwoven web wherein the highly attenuated fibers of Claim 11 are blended with other synthetic or natural fibers and bonded together.
- 14. A disposable article comprising the nonwoven web of Claim 12.
- 15. A environmentally degradable, highly attenuated fiber produced by melt spinning a composition comprising:
  - a. from about 5% to about 80% of destructurized starch,
  - b. from about 15% to about 90% of a biodegradable thermoplastic polymer having a molecular weight of from about 5,000 g/mol to about 500,000 g/mol, and
  - c. from about 2% to about 70% of a plasticizer, wherein thermoplastic polymer microfibrils are formed within the starch matrix in the environmentally degradable, highly attenuated fiber.
- 16. The highly attenuated fiber of Claim 15 wherein the thermoplastic polymer microfibrils have a diameter of from about 0.01 micrometers to about 10 micrometers.
- 17. The highly attenuated fiber of Claim 16 wherein the diameter of the finely attenuated fiber is less than about 200 micrometers.

- 18. The highly attenuated fiber of Claim 15 wherein more than one biodegradable thermoplastic polymer is present.
- 19. The highly attenuated fiber of Claim 16 wherein the biodegradable thermoplastic polymer is a homopolymer or copolymer of crystallizable polylactic acid having a melting temperature of from about 160°C to about 175°C.
- 20. The highly attenuated fiber of Claim 18 wherein the first biodegradable thermoplastic polymer is a homopolymer or copolymer of crystallizable polylactic acid having a melting temperature of from about 160°C to about 175°C and the second biodegradable thermoplastic polymer is another polylactic acid having a lower melting temperature and crystallinity than the first polylactic acid.
- 21. The highly attenuated fiber of Claim 19 wherein a second biodegradable thermoplastic polymer is selected from a group consisting of diacid/diol aliphatic polyesters, aliphatic/aromatic copolyesters, and combinations thereof.
- 22. An nonwoven web comprising envionrmentally degradable, highly attenuated fibers comprising destructurized starch, a biodegradable thermoplastic polymer having a molecular weight of from about 5,000 g/mol to about 500,000 g/mol, and a plasticizer.
- 23. A nonwoven web wherein the highly attenuated fibers of Claim 22 are blended with other synthetic or natural fibers and bonded together.
- 24. A disposable article comprising the nonwoven web of Claim 22.